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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/656,635   | 09/04/2003  | Huei-Pei Kuo         | 10007804-1          | 8116             |
| 22879  | 7590        | 07/29/2005           | EXAMINER            |                  |
| HEWLETT PACKARD COMPANY<br>P O BOX 272400, 3404 E. HARMONY ROAD<br>INTELLECTUAL PROPERTY ADMINISTRATION<br>FORT COLLINS, CO 80527-2400 |             |                      | HU, SHOUXIANG       |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2811                |                  |

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/656,635

Applicant(s)

KUO ET AL.

Examiner

Shouxiang Hu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 5-10, 12, 17-22, 24 and 26-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11, 13-16, 23 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/14/05</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 1-29 are pending in this application; and claims 1-4, 11, 13- 16, 23 and 25 remain active in this office action, in view of the previous office action.

### ***Response to Declaration***

The declaration of Huei Pei Kuo filed on May 23, 2005 under 37 CFR 1.131 has been considered but is ineffective to overcome the prior art reference of Chen (US 2003/0143788 A1), because:

The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Chen reference to either a constructive reduction to practice or an actual reduction to practice. The time period from the initial disclosure of 10/14/2000 shown in Exhibit 1 to the application date of 09/04, 2003 of the instant application is a substantially lengthy one; however, the declaration lacks sufficient evidence to establish diligence to either a constructive reduction to practice or an actual reduction to practice in this period.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 11, 13-16, 23 and 25, as being best understood in view of the response to declaration above, are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (US 2003/0143788 A1).

Chen discloses a method for fabricating a porous electron emission device (Figs. 7-9; also see Paragraphs 0038 and 0039, the method comprising: forming a dielectric layer/barrier (58) over a substrate (10); and forming an opening in the dielectric layer/barrier to expose a central region of the underlying substrate where flat emitters are to be located; forming a semi-conductive surface (56, polysilicon) over the dielectric later/barrier and the central region of the underlying substrate; and anodizing the semi-conductive conductive surface which naturally forms porous region therein, wherein during anodizing, an electric field strength at the central area of the semi-conductive surface corresponding to the opening of the dielectric layer would be naturally at least as great as the one at a perimeter of the porous region in the anodized semi-conductor surface/layer as defined by the inner edge of the opening, since the semi-conductive surface/layer is formed above the dielectric layer, i.e., in a manner substantially same as the one in the selected species of the instant invention. And, it should result in an improvement in porous distributions therein substantially as that as in the instant invention.

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Regarding claims 2 and 14, the dielectric layer (58) can be formed through deposition (Paragraph 0038); thus the corresponding method of Chen should naturally include the step of removing a portion of the deposited dielectric layer so as to expose the central portion of the substrate.

Regarding claims 4 and 16, the method of Chen naturally further includes the steps of forming: a conductive layer (14) on the semi-conductive surface (56); a second conductive layer (54); a second dielectric layer (40); and a third conductive layer (42); and a step of removing a portion of each of the second and third conductive layer and a portion of the second dielectric layer.

### ***Response to Arguments***

Applicant's arguments filed on May 23, 2005 have been fully considered but they are not persuasive.

Applicant's main arguments include: The claim rejections set forth in the previous office action is not valid as Chen is not a valid prior art reference. In response, as explained in the above section of response to declaration, the declaration of Huei Pei Kuo filed on May 23, 2005 under 37 CFR 1.131 is ineffective to overcome the prior art reference of Chen (US 2003/0143788 A1), since it does not meet the due-diligence requirement.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH  
July 26, 2005



**SHOUXIANG HU**  
**PRIMARY EXAMINER**